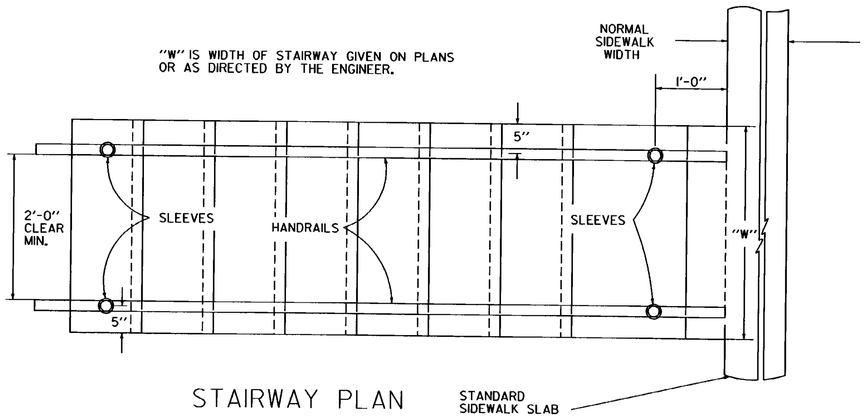


STAIRWAY PLAN

SCHEDULE "A" REINFORCING STEEL

STAIRWAY WIDTHS	NUMBER OF "A" BARS REQUIRED							
	T = 1-5	T=6	T=7	T=8	T=9	T=10	T=11	T=12	T = 12-18
3'	NO STEEL REQUIRED	4	5	5	6	6	7	7	8
4'		5	6	7	7	8	8	9	10
5'		6	7	8	9	9	10	11	12

T = THE NUMBER OF TREADS EXCLUDING THE LANDING

THE NUMBER OF "B" BARS IS EQUAL TO THE NUMBER OF RISERS PLUS TWO BARS.

FOR OTHER WIDTHS THE APPROXIMATE SPACING OF "A" BARS IN INCHES WILL BE EQUAL TO 80 ÷ T WITH A MINIMUM SPACING OF 6 INCHES

GENERAL NOTES

WHEN SLOPES FLATTER THAN 1-2 ARE ENCOUNTERED, LANDINGS WILL BE INTRODUCED IN THE STAIRWAY AT SUCH INTERVALS AND DIMENSIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THERE SHALL BE NO MORE THAN 18 RISERS OR LESS THAN 3 RISERS BETWEEN ANY TWO SUCCESSIVE LANDINGS.

RISERS MAY VARY FROM 5" TO 6" AS DIRECTED BY THE ENGINEER, BUT ALL RISERS IN A STAIRWAY SHALL BE THE SAME HEIGHT. TREADS MAY VARY FROM 9" TO 12" OR AS DIRECTED BY THE ENGINEER SUCH THAT THE STAIRWAY SLOPE FORMS AN ANGLE WITH THE HORIZONTAL OF 25° TO 30°. ALL TREADS IN A STAIRWAY SHALL BE THE SAME DIMENSION.

ALL WELDED JOINTS SHALL BE FINISHED BY GRINDING OR FILING TO GIVE A NEAT APPEARANCE.

RAIL TO BE PAINTED BLACK AFTER ERECTION.

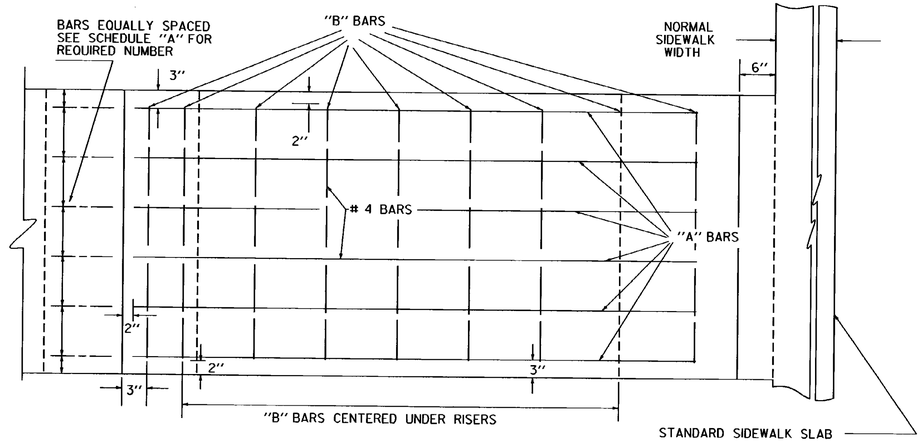
HAND RAIL IS TO BE MEASURED ALONG THE TOP RAIL.

UNIT PRICE BID PER LINEAL FOOT IS TO BE FOR HAND RAIL COMPLETE IN PLACE, INCLUDING ALL HARDWARE, WELDING AND PAINTING.

TWO RAILINGS ARE REQUIRED FOR ALL STAIRS.

CONCRETE SHALL BE CLASS "B", OR AS DIRECTED BY THE ENGINEER.

NO REINFORCING STEEL WILL BE REQUIRED FOR A STAIRWAY WITH 5 OR FEWER TREADS.



STEEL PLAN

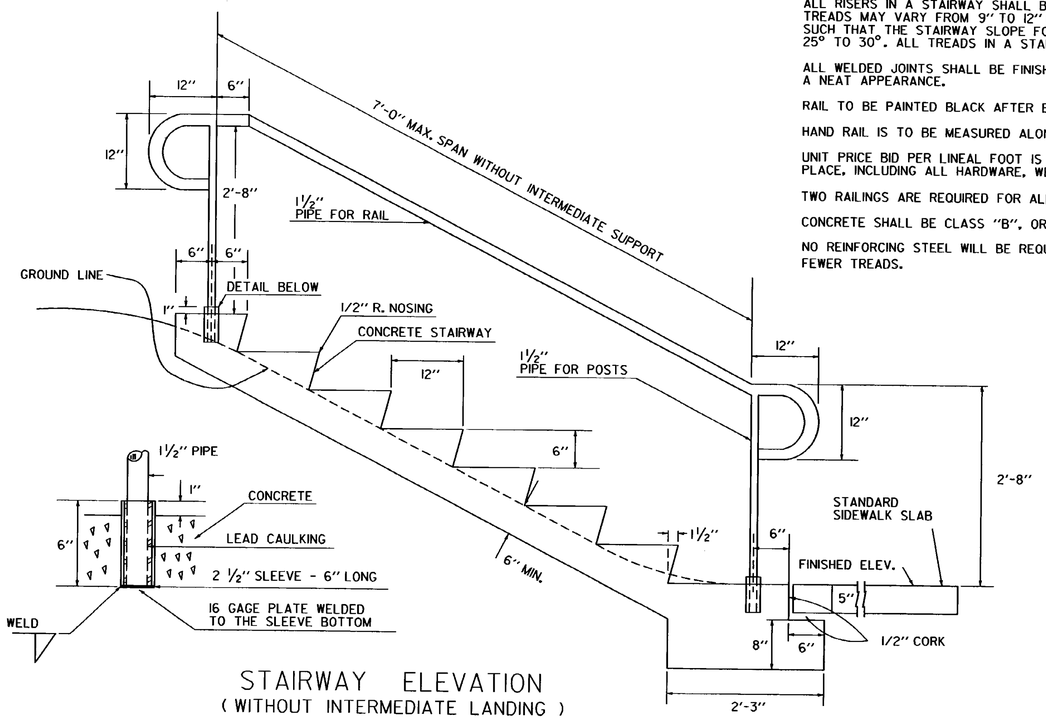
ALL REINFORCING STEEL SHALL BE NO. 4 BARS

CONCRETE CLASS B CUBIC YARDS

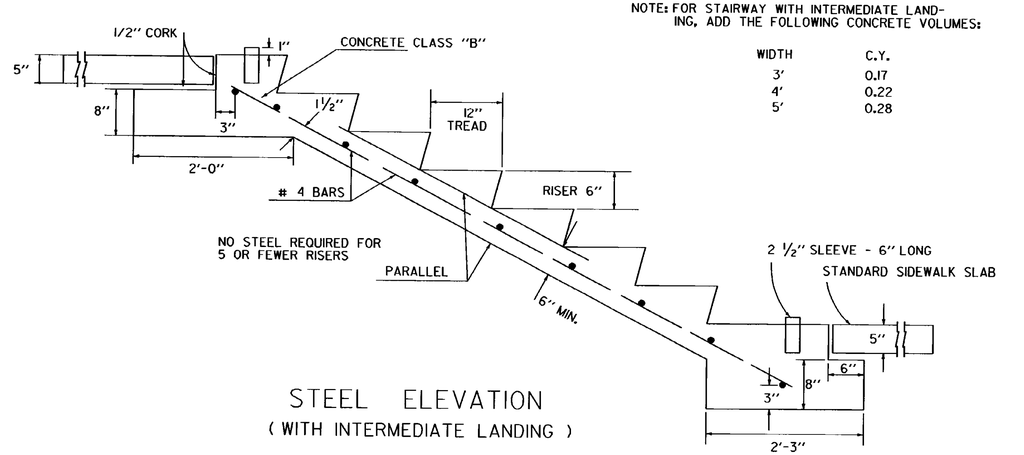
NO. RISERS	WIDTH 3'	WIDTH 4'	WIDTH 5'	HAND-RAIL LF
1	0.41	0.55	0.69	7
2	0.50	0.68	0.85	9
3	0.60	0.80	1.00	11
4	0.69	0.92	1.16	13
5	0.78	1.05	1.31	15
6	0.88	1.17	1.47	17
7	0.97	1.30	1.63	19

NOTE: FOR STAIRWAY WITH INTERMEDIATE LANDING, ADD THE FOLLOWING CONCRETE VOLUMES:

WIDTH	C.Y.
3'	0.17
4'	0.22
5'	0.28



STAIRWAY ELEVATION
(WITHOUT INTERMEDIATE LANDING)



STEEL ELEVATION
(WITH INTERMEDIATE LANDING)

REVISIONS AND CORRECTIONS

DEC. 14, 1971 - ORIGINAL APPROVAL
JAN. 23, 1975 - REDESIGN OF CONNECTION OF STAIRS TO WALK
OCT. 30, 1980 - REVISED TREAD & HANDRAIL DETAILS
AUG. 21, 1981 - MIN. CLEAR WIDTH BETWEEN HANDRAILS ADDED. MINOR NOTE CLARIFICATIONS
JUNE 1, 1994 - REISSUED, WITHOUT CHANGE, UNDER NEW SIGNATURES.

APPROVED

APPROVED FOR THIS PROJECT AND/OR DESIGN IMPLEMENTATION. FHWA FINAL APPROVAL PENDING.

Gordon D. MacArthur, P.E.
DIRECTOR OF ENGINEERING

Robert M. Murphy, P.E.
DESIGN ENGINEER

STANDARD CONCRETE STEPS
METAL HAND RAILING

VERMONT AGENCY OF TRANSPORTATION

STANDARD
J-2